WISDOM IS COMMON SENSE TO AN UNCOMMON DEGREE

THE REA LINEMAN

RURAL ELECTRIFICATION ADMINISTRATION — U. S. DEPARTMENT OF AGRICULTURE

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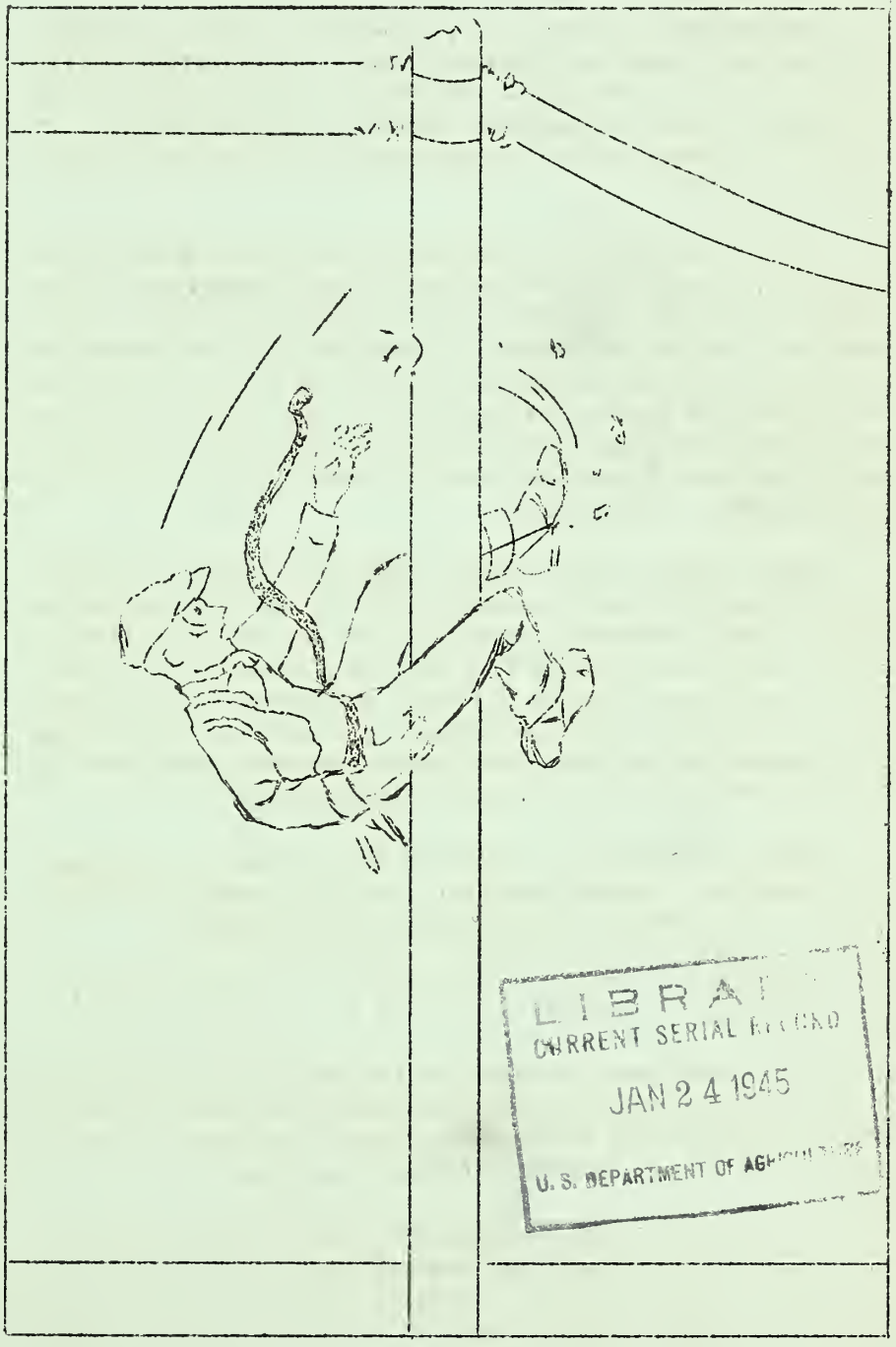
FALL FATAL WHEN HOOKS CUT OUT

A cooperative lineman climbed a pole to hang a service drop. The secondaries were not energized. While preparing to climb down the pole, he unsnapped his safety. One of his hooks cut out and he fell to the ground, landing in a sitting position. A broken neck proved fatal.



This man was a first-class lineman, in excellent health, and he enjoyed his work. Statements from fellow workers indicated that he was a careful workman. This occurrence brings out the necessity for exercising extreme care in climbing at all times. As long as men climb poles, occasionally a man will fall; however, unfortunately, this type of occurrence appears too often in REA accident experience.

A large communication company has produced a film under the title, "Climbing Technique." After careful study, they realized that a great many men had been climbing poles for years in a very unsafe manner. Some very good points were brought out by this film:

1. Before ascending a pole, lineman should make certain that all holes are filled and obstructions removed at the foot of the pole.

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for Employees of REA Systems

David A. Fleming, Editor

PRACTICE IN RESUSCITATION

We never know when or where, or under what circumstances, we will be called upon to use our knowledge of prone pressure resuscitation. It could be a member of our family, or a close friend, or a fellow worker. Are you skilled or unskilled in the use of it?

When emergency confronts you, you have to go to work right then, and quickly. Speedy application is vital to successful results. There is no time to practice -- every motion must be automatic. And the way to achieve this automatic reaction is to practice again and again -- in safety meetings -- before the accident occurs, and with your own line crew.

There is much more to resuscitation than placing a man on his stomach and pressing down on his ribs at regular intervals. If the accident scene were on a hillside, would you place the victim with his head uphill and his feet downhill, or would you place him perpendicular to such a position so that his head and feet would be level? The solution to this question has much to do with the ability to keep resuscitation going over a long period of time, as anyone can testify who has skinned his knees and exhausted himself trying to revive a fellow worker on a steep slope.

People differ in their physical structure. One man may be slim and your hands will have a tendency to slip off his ribs. Another may have such well developed back muscles that you can hardly find his ribs. Still another may be fat; to place him exactly flat on his stomach would have a tendency to restrict the space in his chest cavity. It is better to learn about these and many other details while the "victim" can tell you how much good you are doing rather than wait until the "victim" is unconscious and cannot tell you.

Anyone whose work might subject him to the chance of an electric shock should be a booster for regular, periodical practice of resuscitation. It may mean the difference between life and death.

WATCH THE OTHER FELLOW

A good driver makes allowances for the lack of skill and the lack of knowledge on the part of the other fellow. He recognizes that he has no control over the unpredictable actions of the other drivers and pedestrians, nor over conditions of weather and roads.

So he develops a defense against all these hazards. He concedes his right-of-way and makes other concessions to avoid collisions. He is careful to commit no driving errors himself, and is defensively alert to avoid the accident traps and hazards created by weather, roads, pedestrians and other drivers.

GAFF GAUGES

We have had many requests for a gaff gauge. After considerable inquiry, we find a gauge listed with the Western Electric Company known as the Type "A" Gaff Gauge for checking dimensions of linemen's climbing hook gaffs.

This gauge is available to cooperatives through their usual sellers of line equipment. The cost is about 50 cents.

HOOKS CUT OUT

(Cont'd from page 1)

2. Climbing hooks should be of comfortable length, securely fastened with good straps.

3. The gaff should be sharpened from the under side, avoiding a very sharp point, and with a minimum length of 1-1/4 inches, measured underneath.

4. Steps should be short and easy, adjusted to the individual lineman's natural stride.

5. Legs should be at a 30° angle to the pole. Climb with the legs and not with the arms, avoiding undue strain.

6. On reaching the desired height on the pole, bring both feet to a level, with both gaffs well placed before safetying off. Avoid depending on one gaff while in the act of placing the safety around the pole. The same is true when preparing to descend. Some linemen prefer to drop one foot slightly lower, but we believe this practice should be avoided. REA accident experience records for the past six months show six accidents of a high severity due to hook cut-outs, five of which occurred to linemen with long climbing experience.

May we suggest that all linemen, experienced as well as inexperienced, check up on their own climbing technique.

ILLINOIS SAFETY SESSION IN ST. LOUIS

The annual meeting of the Illinois Safety and Job Training Foremen's Conference was held in the conference room at REA headquarters in St. Louis, Monday and Tuesday, December 11 and 12. The conference was set up by the REA Illinois Safety and Job Training Committee. After a welcome by REA, the meeting was turned over to D. B. Bidle, Illinois Safety and Job Training Instructor.

Mr. Bidle asked Joseph H. McCombs, REA Operations Engineer, Region V, to lead the discussion on operating safety problems. Interesting sidelights on the advisability of using lightning arrester protection for oil circuit breakers were discussed. Mr. McCombs advised that, as a general policy, oil circuit breakers should not be protected, but if a particular location was having trouble with lightning coming in on breakers, lightning arresters might be installed to good advantage. He added that they should be placed on the opposite side to the nearest arrester on the line. The question on the use of cutouts with oil circuit breakers was discussed at length.

Tree trimming and methods of removing hedge were discussed. A. E. Becker, manager of the Menard Electric Cooperative outlined his cooperative's policy on removing hedge with a bulldozer, with the cooperative and the landowner sharing the expense. Mr. Becker stated that the cost to his cooperative was slightly less than $1 a rod.

The Monday afternoon session was taken up with design and construction problems. John Waggoner, manager of the Coles-Moultrie Electric Cooperative, suggested the use of a 2-pole structure for mounting oil circuit breakers on 2 and 3-phase lines. After thorough discussion, it was recommended that REA be asked to submit a construction drawing to the Committees for consideration.

L. M. Elmore, Safety Engineer, was asked to illustrate a recently accepted drawing for mounting an oil circuit breaker on a single-phase line. This drawing shows the use of an 8-ft. double arm at the top of the pole, with the hot phase dead-ended on one end of the arm, and the neutral going straight through on the other end of the arm. The oil circuit breaker is mounted on an off-set bracket directly under the end of the arm carrying the hot phase with the top of the breaker approximately 3 ft. and 7 in. below the arm, and extending the breaker 30 in. from the center of the pole to the center of the breaker.

Leslie C. Marvel, manager of Western Illinois Electrical Cooperative, asked why the breaker was mounted in that manner. Mr. Elmore pointed out the desirability of having a breaker mounted a sufficient distance down from the phase to allow linemen to disconnect the jumpers and have plenty of room to work around the breaker. When it is de-energized and in mounting the breaker 30 in. out from the pole, a lineman is in a much safer position to read counter.

R. E. Payne, field engineer, Design and Construction Division, took part in the design and construction discussions.

The Tuesday morning session opened with W. E. Rushlow, Head, Equipment Standards and Performance Unit, Technical Standards Division, and also Chairman of Technical Standards Committee "A", outlining the functions of the three Committees. Mr. Rushlow asked that suggestions and problems be sent in to the Committees for consideration.

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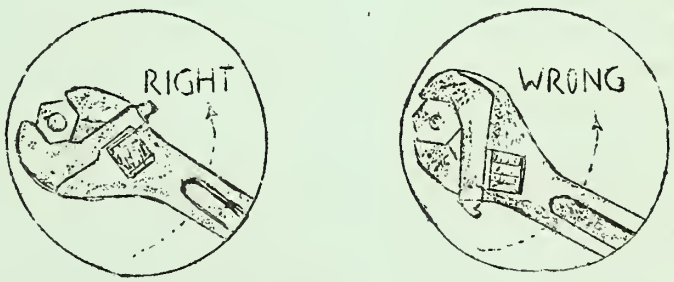
SAVE YOUR TEETH
AS WELL AS YOUR WRENCH



IF YOU FOLLOW THE PRACTICE SHOWN
AT THE RIGHT YOU MAY KNOCK OUT YOUR
TEETH WHEN THE WRENCH SLIPS!

CHECK YOUR AUTOMOTIVE EQUIPMENT!

Why wait for something to happen? Why not go over your automotive equipment today at these points and make necessary repairs:

(1) Headlights (up and down beam)
(2) Tail lights
(3) Stop lights
(4) Dash light
(5) Bumpers
(6) Danger flags and flares
(7) Steering gear
(8) Running boards
(9) Door glass
(10) Rear-view mirror
(11) Nuts holding wheel on hub
(12) Windshield wipers
(13) License plates
(14) Chains and load binders for pole trailers
(15) Brakes, including emergency brake
(16) Mud and snow chains

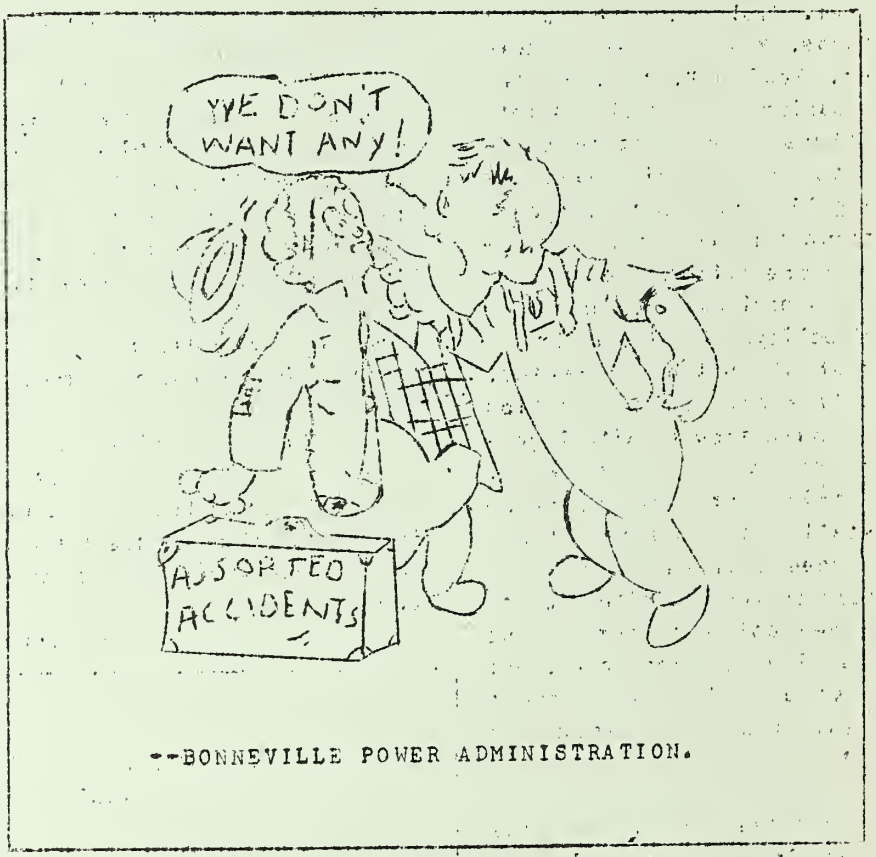
These are essential points of safety and should be checked at regular intervals.

SAFETY CONFERENCE

(Cont'd from page 3)

H. M. Samuels, Chief, Technical Standards Division, made a short talk on safety, pointing out that the first consideration in the design of equipment was for the safety of the men who would operate the equipment in service. Mr. Samuels also explained the recent developments and expected developments in the use of carrier and radio communications equipment to be used by the cooperative in communicating with the line crews and the members. Lee Moore, Head, Consumers Service Section, Technical Standards Division, discussed the problems in connection with these developments.

D. H. Mackay, Head, Distribution Systems Section, Technical Standards Division, and a member of the interpretations committee for the National Electric Safety Code; L. A. Thomas, Head, Specifications and Drafting Unit, Technical Standards Division; F. B. Scott, Head, Testing and Metering Unit, Technical Standards Division, and Max Rothpletz of Technical Standards Division, took part in the discussion of various subjects, including radio interference, loose hardware, National Electric Safety Code and conductor vibration.



--BONNEVILLE POWER ADMINISTRATION.

The afternoon session was opened by Mr. Elmore, with a discussion of Safety and Job Training. Mr. Elmore pointed out the three principal offenders on REA accident experience:

No. 1 - Electric shock
No. 2 - Unloading and handling poles and material
No. 3 - Clearing right-of-way and trimming trees

Mr. Elmore pointed out that climbing hook cut-outs was a contributing factor to our electric shock accidents, explaining that hook cut-outs meant failure of the gaff to hold in the pole.

After a discussion of the November issue of the "REA LINEMAN," the Chairman asked for a report of the Resolutions Committee and the meeting was adjourned. Approximately fifty people attended the conference.